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STRUCTURE FILE UPDATES: 12 AUG 2003 HIGHEST RN 565411-31-6

DICTIONARY FILE UPDATES: 12 AUG 2003 HIGHEST RN 565411-31-6

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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FILE COVERS 1907 - 13 Aug 2003 VOL 139 ISS 7

FILE LAST UPDATED: 12 Aug 2003 (20030812/ED)

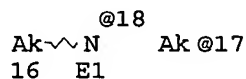
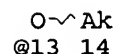
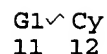
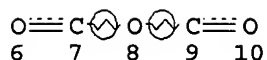
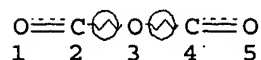
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que

L1 ( 48431)SEA FILE=REGISTRY ABB=ON PLU=ON POLYIMIDE/PCT

L2 STR

KOROMA EIC1700



VAR G1=13/18/17

NODE ATTRIBUTES:

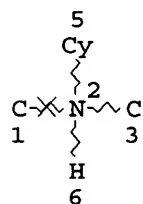
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GGCAT IS SAT AT 14  
GGCAT IS SAT AT 16  
GGCAT IS UNS AT 17  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L3 1 SEA FILE=REGISTRY SUB=L1 SSS FUL L2  
L4 STR



NODE ATTRIBUTES:

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NSPEC IS RC AT 2  
NSPEC IS RC AT 3  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

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L7 2 SEA FILE=REGISTRY SUB=L5 SSS FUL L4

KOROMA EIC1700

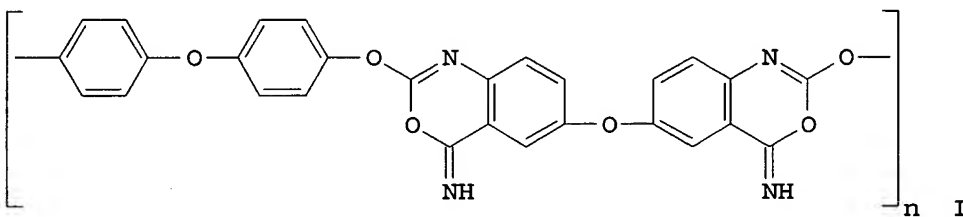
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 L10 2 SEA FILE=CAPLUS ABB=ON PLU=ON L8 OR L9

=> d ibib abs hitstr ind total l10

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1980:408757 CAPLUS  
 DOCUMENT NUMBER: 93:8757  
 TITLE: Thermostable heterocyclic polymers  
 INVENTOR(S): Chernikhov, A. Ya.; Yakovlev, M. N.; Lysova, V. B.;  
 Gefter, E. L.; Shmagina, N. N.  
 PATENT ASSIGNEE(S): USSR  
 SOURCE: Ger. Offen., 53 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2825413	A1	19800117	DE 1978-2825413	19780609
US 4229560	A	19801021	US 1978-910298	19780530
JP 56002088	B4	19810117	JP 1978-72680	19780615
JP 55000716	A2	19800107		
PRIORITY APPLN. INFO.:			DE 1978-2825413	19780609

GI



AB Thermostable heterocyclic polymers are prepd. by reactions of polysubstituted nitrile or ethynyl compds. with polyfunctional compds. Thus, 3.0 g 3,3'-dicyano-4,4'-diisocyanatodiphenyl ether and 2.0 g 4,4'-dihydroxydiphenyl ether were heated to 200.degree. over 1.5 h and then heated 1 h at 200.degree., 0.5 h at 250.degree., and 0.5 h at 300.degree., giving a 98.5% yield of a brown solid polymer (I) [73539-21-6] which showed 1.8% wt. loss after heating 100 h in air at 300.degree..

IT 73600-48-3P

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (manuf. of heat-resistant)

RN 73600-48-3 CAPLUS

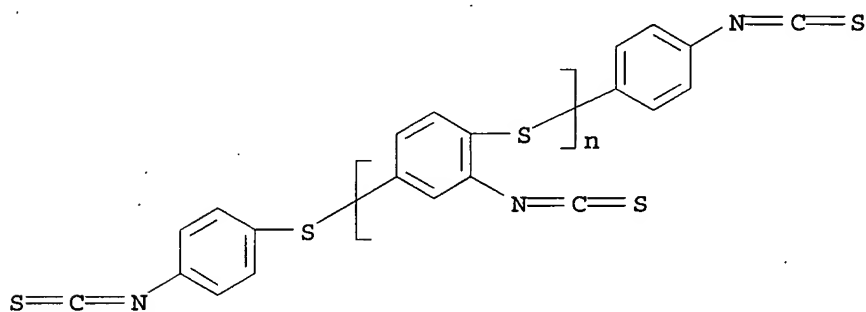
CN Poly[[2,3-dihydro-1,3-dioxo-2-(4,4,6,6-tetrahydro-2,4,4,6,6-pentaphenyl-1,3,5,2,4,6-triazatriphosphorin-2(2H)-yl)-1H-isoindole-4,7-diyl]iminocarbonyloxy(2,3,5,6-tetracyano-1,4-phenylene)oxycarbonylimino], .alpha.-[[ (2,3,5,6-tetracyano-4-hydroxyphenoxy) carbonyl] amino] -.omega.-[2,3-dihydro-1,3-dioxo-7-[[ (2,3,5,6-tetracyano-4-hydroxyphenoxy) carbonyl] amino]-2-(4,4,6,6-tetrahydro-2,4,4,6,6-pentaphenyl-1,3,5,2,4,6-triazatriphosphorin-2(2H)-yl)-1H-isoindol-4-yl]-, polymer with .alpha.-(4-isothiocyanatophenyl) -.omega.-[(4-isothiocyanatophenyl) thio] poly[thio(2-isothiocyanato-1,4-phenylene)] (9CI) (CA INDEX NAME)

CM 1

CRN 73600-47-2

CMF (C7 H3 N S2)n C14 H8 N2 S3

CCI PMS



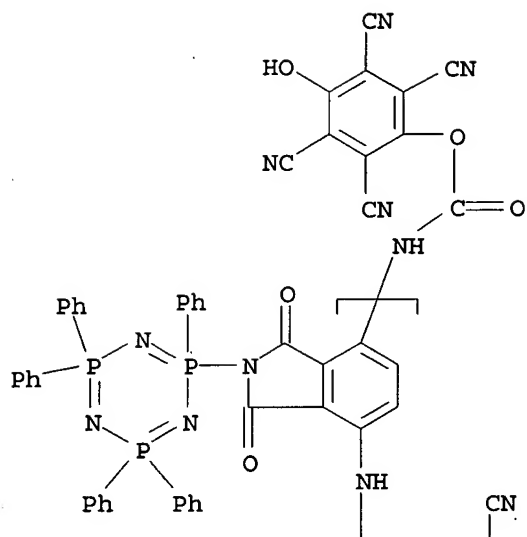
CM 2

CRN 73600-46-1

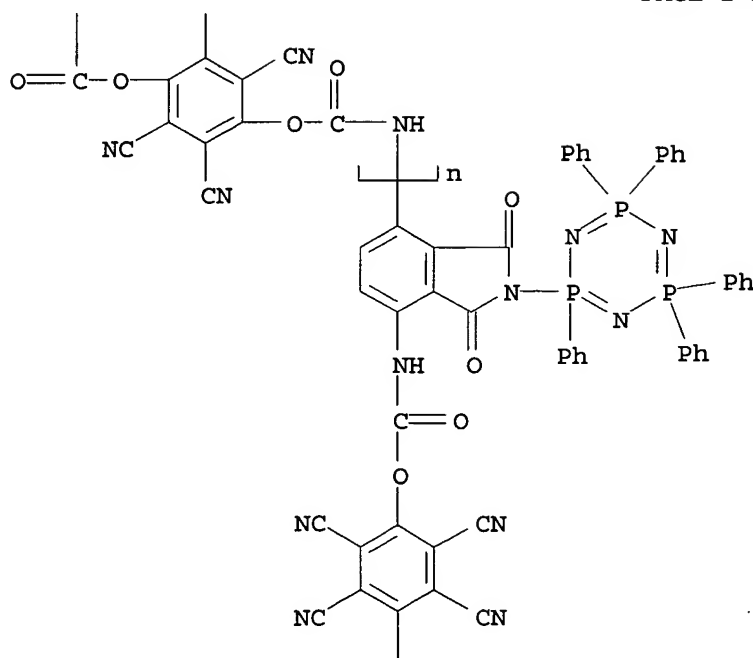
CMF (C50 H29 N10 O6 P3)n C60 H31 N14 O8 P3

CCI PMS

PAGE 1-A



PAGE 2-A



OH

IC C08G073-06; C08G077-32  
CC 35-3 (Synthetic High Polymers)  
ST heterocyclic heat resistant polymer; polybenzoxazine heat resistance  
IT Heat-resistant materials  
(heterocyclic polymers)  
IT Polyamides, preparation  
Polyesters, preparation  
Polyimides, preparation  
Polyoxyphenylenes  
Siloxanes and Silicones, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. of heat-resistant, contg. heterocyclic groups)  
IT Polymerization  
(of polysubstituted ethynyl and nitrile compds. with polyfunctional  
compds., heat-resistant heterocyclic polymers from)  
IT Carboranes  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(poly-, manuf. of heat-resistant, contg. heterocyclic groups)  
IT 1187-12-8DP, polymers with bis(aminoethynylphenyl)propane and  
isothiocyanato-terminated isothiocyanic acid polymethylenephenylene ester  
9016-87-9DP, isothiocyanato-terminated, polymers with  
diaminodicyanoethylene and bis(aminoethynylphenyl)propane 73417-40-0DP,  
polymers with oxydicyanophenylene-siloxane copolymers 73539-21-6P  
73539-97-6P 73600-48-3P 73600-51-8P 73600-54-1P  
73600-57-4P 73600-59-6P 73600-61-0P 73600-64-3P 73600-67-6P  
73600-71-2P 73600-74-5P 73600-81-4DP, polymers with  
(cyanohydroxyphenyl)siloxanes 73603-44-8DP, polymers with  
diaminodicyanoethylene and isothiocyanato-terminated isothiocyanic acid  
polymethylenephenylene ester 73613-40-8P 73613-44-2P 73613-48-6P  
73614-20-7P 73614-21-8P 73614-56-9P 73614-59-2P 73614-65-0P  
73614-69-4P 73614-72-9P 73614-80-9P 73614-86-5P 73614-91-2P  
73614-95-6P 73614-97-8P 73615-03-9P 73615-11-9P 73615-13-1P  
73615-16-4P 73615-19-7P 73615-21-1P 73629-28-4P 73629-30-8P  
73629-33-1P 73629-36-4P 73629-38-6P 73650-29-0P 73655-78-4P  
73716-72-0P 73716-73-1P 74009-36-2P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. of heat-resistant)

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1970:477843 CAPLUS

DOCUMENT NUMBER: 73:77843

TITLE: Thermally stable film-forming polymers

INVENTOR(S): Yoda, Naoya; Kurihara, Masaru; Toyama, Shunroku;  
Dogoshi, Noriaki; Hagiwara, Yoshichi; Itoga, Masaaki;  
Fujita, Saburo; Yamoto, Hirotsuke

PATENT ASSIGNEE(S): Toyo Rayon Co., Ltd.

KOROMA EIC1700

SOURCE: Ger. Offen., 49 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1811588	C3	19730104	DE 1968-1811588	19681129
NL 6817318	A	19690606	NL 1968-17318	19681203
GB 1237004	A	19710630	GB 1968-1237004	19681203
FR 1604873	A	19720417	FR 1968-1604873	19681203
PRIORITY APPLN. INFO.:			JP 1967-77575	19671204
			JP 1968-16504	19680315
			JP 1968-16505	19680315

GI For diagram(s), see printed CA Issue.

AB Polymers contg. units of general structure I, where R is a bivalent group contg. 2 noncondensed benzene rings, X is a trimellitic acid residue, Y = O, S, CO<sub>2</sub>, or substituted N, and Z is a tetravalent group contg. 2 noncondensed benzene rings, were prepd. by heating the corresponding polyamic acids first to a temp. between the primary and secondary transition points (T<sub>1</sub> and T<sub>2</sub>) and then to a temp. between the secondary transition point and the decompn. temp. Thus, a mixt. of 3,3'-diamino-4,4'-biphenol 10.9, N-methylpyrrolidinone 200, and trimellitic anhydride chloride 21 parts in 10 parts pyridine was stirred for 2 hr at -15 to -20.degree., the temp. increased to room temp., 21.8 parts pyromellitic dianhydride and 29.9 parts (p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub> added, and the mixt. stirred for 3 hr at room temp. to give a soln. (II) of a polyamic acid of T<sub>1</sub> = 110.degree. and T<sub>2</sub> = 280.degree.. II was poured onto a glass plate and dried 1 hr at 80.degree. and 3 hr at 100.degree. to give a film which was heated 5 min at 185.degree. and 15 min at 378.degree. to yield a poly(imide benzoxazole) film of 96% elongation.

IT 28210-03-9P

RL: PREP (Preparation)  
 (prepn. of)

RN 28210-03-9 CAPLUS

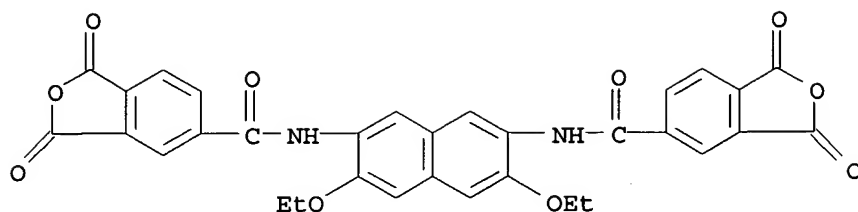
CN Phthalic anhydride, 4,4'-[(3,6-diethoxy-2,7-naphthylene)bis(iminocarbonyl)]di-, polymer with p-phenylenediamine (8CI) (CA INDEX NAME)

CM 1

CRN 47853-11-2

CMF C32 H22 N2 O10

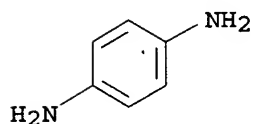




CM 2

CRN 106-50-3

CMF C6 H8 N2



IC C08G

CC 35 (Synthetic High Polymers)

ST thermally stable polymers; trimellitic anhydride acid chloride; pyromellitic anhydride polymers; polyimides; benzoxazoles imides; polymeric; polybenzoxazole imides; polybenzothiazole imides; polybenzimidazole imides; polybenzoxazinone imides

IT 1,2,4,5-Benzenetetracarboxylic 1,2:4,5-dianhydride, polymer with (aminophenoxy)-o-phenylenediamine, 4,4'-[(3,3'-dimercapto-4,4'-biphenylene)bis(iminocarbonyl)]diphthalic anhydride and 4,4'-oxydianiline

Aniline, 4,4'-oxydi-, polymer with (aminophenoxy)-o-phenylenediamine, 1,2,4,5-benzenetetracarboxylic 1,2:4,5-dianhydride and 4,4'-[(3,3'-dimercapto-4,4'-biphenylene)bis(iminocarbonyl)]diphthalic anhydride

Phthalic anhydride, 4,4'-[(3,3'-dimercapto-4,4'-biphenylene)bis(iminocarbonyl)]di-, polymer with (aminophenoxy)-o-phenylenediamine, 1,2,4,5-benzenetetracarboxylic 1,2:4,5-dianhydride and 4,4'-oxydianiline

Phthalic anhydride, 4,4'-[[3,3'-bis(cyclohexyloxy)-4,4'-biphenylene]bis(iminocarbonyl)]di-, polymer with diaminopyridine

Phthalic anhydride, 4,4'-[carbonylbis[(2-hydroxy-p-phenylene)iminocarbonyl]]di-, polymer with diaminopyridine

Poly[imino(2-hydroxy-p-phenylene)imino(3-hydroxy-p-phenylene)iminocarbonyl(carboxyphenylene)carbonylimino-4,4'-biphenyleneiminocarbonyl(carboxyphenylene)carbonyl]

Poly[imino-p-phenyleneiminocarbonyl(carboxyphenylene)carbonylimino(3,6-diethoxy-2,7-naphthylene)iminocarbonyl(carboxyphenylene)carbonyl]

Poly[imino-p-phenyleneiminocarbonyl(carboxyphenylene)carbonylimino(3,6-dihydroxy-2,7-naphthylene)iminocarbonyl(carboxyphenylene)carbonyl]

KOROMA EIC1700

Poly[iminocarbonyl (carboxycyclohexylene) carbonylimino (3,3'-dimethoxy-4,4'-biphenylylene) iminocarbonyl (carboxycyclohexylene) carbonylimino-4,4'-biphenylylene]

Poly[iminocarbonyl (carboxycyclohexylene) carbonylimino-4,4'-biphenylyleneiminocarbonyl (carboxycyclohexylene) carbonylimino (2-hydroxy-p-phenylene) isopropylidene (3-hydroxy-p-phenylene)]

Poly[iminocarbonyl (carboxyphenylene) carbonylimino (3,3'-dibutoxy-4,4'-biphenylylene) iminocarbonyl (carboxyphenylene) carbonylimino-4,4'-biphenylylene]

Poly[iminocarbonyl (carboxyphenylene) carbonylimino-4,4'-biphenylyleneiminocarbonyl (carboxyphenylene) carbonylimino (2-hydroxy-p-phenylene) methylene (3-hydroxy-p-phenylene)]

Poly[oxy (3-hydroxy-p-phenylene) iminocarbonyl (carboxycyclohexylene) carbonylimino-1,4-cyclohexyleneiminocarbonyl (carboxycyclohexylene) carbonylimino (2-hydroxy-p-phenylene)]

Poly[oxy-p-phenyleneiminocarbonyl (carboxyphenylene) carbonylimino (2-hydroxy-p-phenylene) thio (3-hydroxy-p-phenylene) iminocarbonyl (carboxyphenylene) carbonylimino-p-phenylene]

Poly[oxy-p-phenyleneiminocarbonyl (carboxyphenylene) carbonylimino (3,3'-dihydroxy-4,4'-biphenylylene) iminocarbonyl (carboxyphenylene) carbonylimino-p-phenylene]

Poly[oxy-p-phenyleneiminocarbonyl (carboxyphenylene) carbonylimino (3,3'-dimethoxy-4,4'-biphenylylene) iminocarbonyl (carboxyphenylene) carbonylimino-p-phenylene]

Poly[pyridinediyliminocarbonyl (carboxyphenylene) carbonylimino (2-hydroxy-p-phenylene) carbonyl (3-hydroxy-p-phenylene) iminocarbonyl (carboxyphenylene) carbonylimino]

Poly[pyridinediyliminocarbonyl (carboxyphenylene) carbonylimino [3,3'-bis (cyclohexyloxy) -4,4'-biphenylylene] iminocarbonyl (carboxyphenylene) carbonylimino]

Pyridine, diamino-, polymer with 4,4'-[[3,3'-bis (cyclohexyloxy) -4,4'-biphenylylene]bis (iminocarbonyl)]diphthalic anhydride

Pyridine, diamino-, polymer with 4,4'-[carbonylbis [(2-hydroxy-p-phenylene) iminocarbonyl]]diphthalic anhydride

o-Phenylenediamine, (aminophenoxy)-, polymer with 1,2,4,5-benzenetetracarboxylic 1,2:4,5-dianhydride, 4,4'-[(3,3'-dimercapto-4,4'-biphenylylene)bis (iminocarbonyl)]diphthalic anhydride and 4,4'-oxydianiline

RL: PREP (Preparation)  
(prepn. of)

IT	26063-84-3P	26428-29-5P	26500-29-8P	28207-02-5P	28207-03-6P
	28207-04-7P	28207-05-8P	28207-70-7P	28207-71-8P	28207-72-9P
	28207-86-5P	28207-87-6P	28207-88-7P	28207-89-8P	28207-90-1P
	28207-92-3P	28207-93-4P	28207-94-5P	28207-95-6P	28207-96-7P
	28207-97-8P	28207-98-9P	28207-99-0P	28208-00-6P	<b>28210-03-9P</b>
	28377-67-5P	28378-19-0P	28378-20-3P	28475-81-2P	

RL: PREP (Preparation)  
(prepn. of)